

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Commissioner
 US Department of Commerce
 United States Patent and Trademark
 Office, PCT
 2011 South Clark Place Room
 CP2/5C24
 Arlington, VA 22202
 ETATS-UNIS D'AMERIQUE
 in its capacity as elected Office

Date of mailing (day/month/year) 28 March 2001 (28.03.01)	
International application No. PCT/GB00/02692	Applicant's or agent's file reference HL72894/001
International filing date (day/month/year) 13 July 2000 (13.07.00)	Priority date (day/month/year) 13 July 1999 (13.07.99)
Applicant WYNNE, Adam, Joshua	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International Preliminary Examining Authority on:

12 February 2001 (12.02.01)

☐ in a notice effecting later election filed with the International Bureau on:2. The election ☒ was☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO
 34, chemin des Colombettes
 1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer

Olivia TEFY

Telephone No.: (41-22) 338.83.38

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference HL72894/001	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/GB 00/ 02692	International filing date (day/month/year) 13/07/2000	(Earliest) Priority Date (day/month/year) 13/07/1999
Applicant INFINIA IP LTD		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☐ as suggested by the applicant.

☒ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

1
☐ None of the figures.

INTERNATIONAL SEARCH REPORT

International Application No

PCT 00/02692

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 G06F1/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 99 26123 A (WAKELY CHRISTOPHER BENJAMIN) 27 May 1999 (1999-05-27)	1-3, 6-15, 18-22
Y	page 5, line 7 - line 9	4,5,16, 17
	page 5, line 19 -page 6, line 8 page 10, line 8 -page 11, line 1 page 15, line 9 - line 14 page 19, line 15 - line 21; figure 1	
Y	WO 95 35533 A (MEGALODE CORP) 28 December 1995 (1995-12-28) page 6, paragraph 2 page 16, line 3 - line 22; figures 1-4	4,5,16, 17
	--- -/--	



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- * & * document member of the same patent family

Date of the actual completion of the international search

17 November 2000

Date of mailing of the international search report

24/11/2000

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Moens, R

INTERNATIONAL SEARCH REPORT

International Application No

PCT/00/02692

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>US 5 757 908 A (PRYOR ROBERT FRANKLIN ET AL) 26 May 1998 (1998-05-26) column 13, line 5 -column 15, line 5; figure 13</p> <p>-----</p>	1-22

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/00/02692

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
WO 9926123	A	27-05-1999	NONE		
WO 9535533	A	28-12-1995	AU	2666595 A	15-01-1996
US 5757908	A	26-05-1998	US	5598470 A	28-01-1997
			CA	2145922 A,C	26-10-1995
			EP	0681233 A	08-11-1995
			JP	7306780 A	21-11-1995
			KR	188505 B	01-06-1999

REC'D 02 OCT 2001

WIPO

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference HL72894/001	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/GB00/02692	International filing date (day/month/year) 13/07/2000	Priority date (day/month/year) 13/07/1999
International Patent Classification (IPC) or national classification and IPC G06F1/00		
Applicant INFINIA IP LTD et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.



2. This REPORT consists of a total of 7 sheets, including this cover sheet.

- ☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 6 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☒ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☒ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 12/02/2001	Date of completion of this report 28.09.2001
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer Van de Maele, L Telephone No. +49 89 2399 8805 

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/GB00/02692

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):
Description, pages:

1,3-7	as originally filed	
2,2a	with telefax of	13/09/2001

Claims, No.:

1-18	with telefax of	13/09/2001
------	-----------------	------------

Drawings, sheets:

1	as originally filed	
---	---------------------	--

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/GB00/02692

- ☐ the description, pages:
- ☐ the claims, Nos.:
- ☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

- ☐ the entire international application.
- ☒ claims Nos. 17,18.

because:

- ☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (*specify*):
- ☒ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 17,18 are so unclear that no meaningful opinion could be formed (*specify*):
see separate sheet
- ☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.
- ☐ no international search report has been established for the said claims Nos. .

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

- ☐ the written form has not been furnished or does not comply with the standard.
- ☐ the computer readable form has not been furnished or does not comply with the standard.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/GB00/02692

1. Statement

Novelty (N)	Yes:	Claims	1-16
	No:	Claims	
Inventive step (IS)	Yes:	Claims	
	No:	Claims	1-16
Industrial applicability (IA)	Yes:	Claims	1-16
	No:	Claims	

2. Citations and explanations **see separate sheet**

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:
see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/GB00/02692

Prior art documents:

D1: WO 99 26123 A
D2: WO 95 35533 A
D3: US 5 757 908 A

Re. Item III

1. According to *Rule 6.2(a) PCT*, claims should not contain references to the description and/or the drawings, except where absolutely necessary. Claims **17 and 18** rely on such references. Furthermore, these claims only rely on such references to define their subject-matter and do not include any technical features. Therefore, these claims lack of clarity (*Article 6 PCT*) in such a manner that no statement in respect of *Article 33 PCT* can be given.

Re. Item V

1. Claim 1 relates to a method for identifying a computer on-line connected to a remote site.
- 1.a The features on lines 3 to 7 define the steps of generating a unique identifier for the computer and are already known from D1 (page 5, line 19 to page 6, line 8) and D2 (page 16, lines 3 to 22).

The features on lines 8 and 9 in combination with the features on lines 14 and 15 define the steps of building a database of identifiable computers on the remote site and are already known from D1 (page 10, lines 8 to 11).

The features on lines 8 and 9 in combination with the features on lines 10 to 11 define the steps of identifying a computer. Even though these features are not explicitly described in D1, they are already suggested on page 10, lines 19 ff. of this document.

Therefore the features on the above mentioned lines of claim 1 do not involve an inventive step.

- 1.b The remaining features of claim 1 (on lines 12 and 13) are not part of the solution for identifying a computer, but define a solution for retrieving information related to an already identified computer. It is considered an obvious solution to store that information together with the identifier of that computer because as such it is immediately found (another solution could be to store a pointer with the identifier of the computer pointing at the location where that information is stored). Moreover, D1 also already teaches to have a database with information relating to identified computers whereby, in correspondence with claim 1, this information is linked to these computers by their respective unique identifier (D1, page 11, line 19 to page 12, line 4). The information stored in the D1-database does not relate to credit information as in claim 1. However, the concept is the same and it is considered within the scope of a skilled person to see that the D1 concept can be used for any kind of information kind. Therefore, the solution defined by these remaining features of claim 1 do not involve an inventive step either.
- 1.c Therefore, on the basis of the teaching in D1 a skilled person would arrive at a method as defined in claim 1 to solve the problem of identifying a computer and retrieving information relating to that computer. Therefore, claim 1 does not meet the requirements of *Article 33(3) PCT* for lack of inventive step.
2. Dependent claim 2 merely further defines the actual information stored in the database. As already indicated above, it is obvious that any kind of information kind be stored in that database. Therefore, the features of claim 2 do not add anything of inventive significance and thus this claim also does not meet *Article 33 PCT*.
3. The features of claims 3 and 4 are already known from D1 (page 5, line 21 to page 6, line 8) and from D2 (page 16, lines 3 to 22); the features of claims 5 and 6 are already known from D2 (page 16, lines 3 to 22); the features of claim 7 are already known from D2 (page 16, line 31 et seq.) and the features of claim 8 are already implicitly known from D1 (page 10, lines 8). The encryption features of claims 11 and 12 merely represent standard practice to secure data.

Therefore, the features of claims 3 to 12 are not considered to involve an inventive step and thus these claims apparently do not meet the requirements of *Article 33(3) PCT*.

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/GB00/02692

4. System claims **11 to 16** find their counterpart in the method claims **1 to 6**.
Therefore the same conclusion applies.

Re. Item VII

1. Independent claims are not in the two-part form in accordance with *Rule 6.3(b) PCT*.


PATENT COOPERATION TREATY

SR

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

PCT

NOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL PRELIMINARY
EXAMINATION REPORT
(PCT Rule 71.1)

To: HASELTINE LAKE & CO. Imperial House 15-19 Kingsway London WC2B 6UD GRANDE BRETAGNE		Date of mailing (day/month/year) 28.09.2001	
Applicant's or agent's file reference HL72894/001		IMPORTANT NOTIFICATION	
International application No. PCT/GB00/02692	International filing date (day/month/year) 13/07/2000	Priority date (day/month/year) 13/07/1999	
Applicant INFINIA IP LTD et al.			
<p>1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.</p> <p>2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.</p> <p>3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.</p> <p>4. REMINDER</p> <p>The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).</p> <p>Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.</p> <p>For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.</p>			
Name and mailing address of the IPEA/  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465		Authorized officer Muehlbauer, P Tel. +49 89 2399-2513	





PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference HL72894/001		FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/GB00/02692	International filing date (day/month/year) 13/07/2000	Priority date (day/month/year) 13/07/1999	
International Patent Classification (IPC) or national classification and IPC G06F1/00			
Applicant INFINIA IP LTD et al.			
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 7 sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of 6 sheets.</p>			
<p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input checked="" type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input checked="" type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application 			
Date of submission of the demand 12/02/2001		Date of completion of this report 28.09.2001	
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523556 epmu d Fax: +49 89 2399 - 4465		Authorized officer Van de Maele, L Telephone No. +49 89 2399 8805 	

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/GB00/02692

I. Basis of the report

1. With regard to the elements of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, pages:

1,3-7 as originally filed
2,2a with telefax of 13/09/2001

Claims, No.:

1-18 with telefax of 13/09/2001

Drawings, sheets:

1 as originally filed

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: . which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. PCT/GB00/02692

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c));
(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:
- ☐ the entire international application.
- ☒ claims Nos. 17,18.

because:

- ☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (*specify*):
- ☒ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 17,18 are so unclear that no meaningful opinion could be formed (*specify*):
see separate sheet
- ☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.
- ☐ no international search report has been established for the said claims Nos. .
2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:
- ☐ the written form has not been furnished or does not comply with the standard.
- ☐ the computer readable form has not been furnished or does not comply with the standard.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**International application No. PCT/GB00/02692

1. Statement

Novelty (N)	Yes:	Claims	1-16
	No:	Claims	
Inventive step (IS)	Yes:	Claims	
	No:	Claims	1-16
Industrial applicability (IA)	Yes:	Claims	1-16
	No:	Claims	

**2. Citations and explanations
see separate sheet****VII. Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:
see separate sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/GB00/02692

Prior art documents:

D1: WO 99 26123 A
D2: WO 95 35533 A
D3: US 5 757 908 A

Re. Item III

1. According to *Rule 6.2(a) PCT*, claims should not contain references to the description and/or the drawings, except where absolutely necessary. Claims 17 and 18 rely on such references. Furthermore, these claims only rely on such references to define their subject-matter and do not include any technical features. Therefore, these claims lack of clarity (*Article 6 PCT*) in such a manner that no statement in respect of *Article 33 PCT* can be given.

Re. Item V

1. Claim 1 relates to a method for identifying a computer on-line connected to a remote site.
 - 1.a The features on lines 3 to 7 define the steps of generating a unique identifier for the computer and are already known from D1 (page 5, line 19 to page 6, line 8) and D2 (page 16, lines 3 to 22).

The features on lines 8 and 9 in combination with the features on lines 14 and 15 define the steps of building a database of identifiable computers on the remote site and are already known from D1 (page 10, lines 8 to 11).

The features on lines 8 and 9 in combination with the features on lines 10 to 11 define the steps of identifying a computer. Even though these features are not explicitly described in D1, they are already suggested on page 10, lines 19 ff. of this document.

Therefore the features on the above mentioned lines of claim 1 do not involve an inventive step.

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/GB00/02692

- 1.b The remaining features of claim 1 (on lines 12 and 13) are not part of the solution for identifying a computer, but define a solution for retrieving information related to an already identified computer. It is considered an obvious solution to store that information together with the identifier of that computer because as such it is immediately found (another solution could be to store a pointer with the identifier of the computer pointing at the location where that information is stored). Moreover, D1 also already teaches to have a database with information relating to identified computers whereby, in correspondence with claim 1, this information is linked to these computers by their respective unique identifier (D1, page 11, line 19 to page 12, line 4). The information stored in the D1-database does not relate to credit information as in claim 1. However, the concept is the same and it is considered within the scope of a skilled person to see that the D1 concept can be used for any kind of information kind. Therefore, the solution defined by these remaining features of claim 1 do not involve an inventive step either.
- 1.c Therefore, on the basis of the teaching in D1 a skilled person would arrive at a method as defined in claim 1 to solve the problem of identifying a computer and retrieving information relating to that computer. Therefore, claim 1 does not meet the requirements of *Article 33(3) PCT* for lack of inventive step.
2. Dependent claim 2 merely further defines the actual information stored in the database. As already indicated above, it is obvious that any kind of information kind be stored in that database. Therefore, the features of claim 2 do not add anything of inventive significance and thus this claim also does not meet *Article 33 PCT*.
3. The features of claims 3 and 4 are already known from D1 (page 5, line 21 to page 6, line 8) and from D2 (page 16, lines 3 to 22); the features of claims 5 and 6 are already known from D2 (page 16, lines 3 to 22); the features of claim 7 are already known from D2 (page 16, line 31 et seq.) and the features of claim 8 are already implicitly known from D1 (page 10, lines 8). The encryption features of claims 11 and 12 merely represent standard practice to secure data.

Therefore, the features of claims 3 to 12 are not considered to involve an inventive step and thus these claims apparently do not meet the requirements of *Article 33(3) PCT*.

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT - SEPARATE SHEET**

International application No. PCT/GB00/02692

4. System claims 11 to 16 find their counterpart in the method claims 1 to 6.
Therefore the same conclusion applies.

Re. Item VII

1. Independent claims are not in the two-part form in accordance with *Rule 6.3(b) PCT*.

13-SEP-2001 14:01 FROM HASELTINE LAKE
13-09-2001

TO EPD MUNICH

JC13 rec'd PCT/PTO 11 JAN 2002

-2-

One of the difficulties experienced by providers of such on-line services is the identification of the user logging on to the associated remote site, for the purposes of credit control and for marketing information.

5

In most cases, some information has to be provided by the user before credit will be granted or the purchase can be effected, but the medium of payment lends itself to fraudulent input. A user paying by means of credit or debit cards is not physically present when the transaction is concluded, and this enables the user to decline the purchase when the payment is presented to him by the account holder of the card facility. The provision of this user information also adds to the medium of usage when a customer logs onto a commercial site.

10

15

20

25

30

International Patent No. WO99/26123 discloses a method and a system for preventing an authorised installation or running of a program on a computer. A unique identifier associated with the computer is generated as an encrypted function of an identifying element associated with the computer, such as a hard disk serial number, and an identifying element associated with the program. The encrypted data is decrypted at the computer and installation of the program is prevented if the computer identifying element is not equivalent to, or derivable from, the decrypted data. A substantially similar method of preventing use of software on an authorised computer is taught in International Patent No. WO95/35533.

35

Both of these methods, while suggesting the generation of a unique identifier as a function of characteristics derived from computer hardware, are directed at preventing installation of a software program on a particular hard disk of a computer, and not at positively

13-SEP-2001 14:02 FROM HASELTINE LAKE
13-09-2001

TO EPO MUNICH

D 05/11
GB0002692

-2a-

5 identifying a particular computer connected to a network
to prevent fraud in online commercial transactions
conducted with the use of debit or credit cards.

OBJECT OF THE INVENTION

10 It is an object of this invention to provide a method of
and system for identifying a computer connected on-line
to a remotely located site, which can at least partially,
alleviate the above-mentioned difficulties.

SUMMARY OF THE INVENTION

15 In accordance with this invention there is provided a
method of identifying a computer connected on-line to a
remotely located site, comprising the steps of:
20 searching a hard disk associated with the computer for an
identifying element inherent to the computer;
combining such an identifying element, when found,
together with other identifying information associated
with the hardware of the computer, to form a unique
identifier for that computer;

13-SEP-2001 14:02 FROM HASELTINE LAKE
13-09-2001

TO EPA KERNICK

1030727 GB0002692

JC13 Rec'd PCT/PL 11 JAN 2002

8

CLAIMS:-

1. A method of identifying a computer connected on-line to a remotely located site, comprising the steps of:
searching a hard disk associated with the computer for an identifying element inherent to the computer;
combining such an identifying element, when found, together with other identifying information associated with the hardware of the computer, to form a unique identifier for that computer;
comparing the unique identifier for the computer to a store of such unique identifiers available to the remote site;
if the unique identifier is present in the store, accessing data which is available to the remote site and which is associated with that unique identifier, the data relating, at least partially, to a credit record of previous transactions effected from that computer; and
if the unique identifier is not present in the store, then storing it in the store, and recording against it data associated with that computer.
2. A method as claimed in claim 1 in which the data associated to that computer, and against which the unique identifier is recorded, relates to further data associated with such previous transactions, such as credit card details used during such previous transactions.
3. A method as claimed in either one of claims 1 or 2 in which the identifying element that is searched for on the hard disk is a predetermined number.

13-SEP-2001 14:06 FROM BASELINE LAKE

TO EPO MUNICH

P 07/11
GB0002692

13-09-2001

9

4. A method as claimed in claim 3 in which the predetermined number is a serial number of the hard disk or another such number which is unique to the hardware of the computer.
5. A method as claimed in any one of the preceding claims in which the other identifying information is information that is associated with the geometry of the hard disk.
6. A method as claimed in claim 5 in which the information associated with the geometry of the hard disk includes the number of sectors, platters and cylinders in the disk.
7. A method as claimed in any one of the preceding claims in which the combining function is performed on the computer.
8. A method as claimed in any one of the preceding claims in which the unique identifier is sent to the remote site, from where it is compared to the store.
9. A method as claimed in any one of the preceding claims in which the combining function is an encryption process.
10. A method as claimed in claim 11 in which the encryption process is a 'hash - type' encryption.
11. A system for identifying a computer connected on-line to a remotely located site, comprising:
searching means for searching a hard disk associated with the computer for an identifying element inherent to the computer;
combining means for combining such an identifying element, when

13-SEP-2001 14:02 FROM HASELTINE LAKE

TO EPD MUNICH

GB0002692

10

found, together with other identifying information associated with the hardware of the computer, to form a unique identifier for that computer; a database of unique identifiers for computers, the database being available to the remote site and having data associated with each such unique identifier, the data relating, at least partially, to a credit record of previous transactions effected from that computer; and comparator and operator means for matching the unique identifier with one in the database of such unique identifiers and with the data which is associated with a matched unique identifier, and for storing an unmatched unique identifier in the database and recording against it data associated with that computer.

12. A system as claimed in claim 11 in which the data associated to that computer, and against which the unique identifier is recorded, relates to further data associated with such previous transactions, such as credit card details used during such previous transactions.
13. A system as claimed in either one of claims 11 or 12 in which the searching means is arranged to establish a predetermined type of number such as the serial number of the hard disk of the computer as the identifying element.
14. A system as claimed in either one of claims 11 or 12 in which the searching means is arranged to establish a mark or number which is inherently particular to hardware connected to the computer, as the identifying element.
15. A system as claimed in any one of claims 11 to 14 in which the searching means is arranged to establish the other identifying

13-SEP-2001 14:02 FROM HASSETT LAKE
13-09-2001

TO EPO KERNICK

GB0002692

11

information that is associated with the geometry of the hard disk of the computer.

16. A system as claimed in claim 15 in which the geometry of the hard disk includes the number of sectors, platters and cylinders in the hard disk.
17. A method of identifying a computer connected on-line to a remotely located site, substantially as herein described with reference to the accompanying drawings.
18. A system for identifying a computer connected on-line to a remotely located site, substantially as herein described with reference to and as illustrated in the accompanying drawings.

EMPFANGSZEIT 13 SEP 14:02
AMENDED SHEET

ANMELDUNGSPATENT 13 SEP 14:02

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
18 January 2001 (18.01.2001)

PCT

(10) International Publication Number
WO 01/04730 A1

(51) International Patent Classification⁷: **G06F 1/00**

Joshua [ZA/ZA]; 12 Comrie Road, Camps Bay, Cape Town, 8001 Cape Province (ZA).

(21) International Application Number: PCT/GB00/02692

(22) International Filing Date: 13 July 2000 (13.07.2000)

(74) Agent: O'CONNELL, David, Christopher; Haseltine Lake & Co., Imperial House, 15-19 Kingsway, London WC2B 6UD (GB).

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
9916432.9 13 July 1999 (13.07.1999) GB

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(71) Applicant (*for all designated States except US*): INFINIA IP LTD [GB/GB]; 32 Athol Street, Douglas, Isle of Man IM1 1JB (GB).

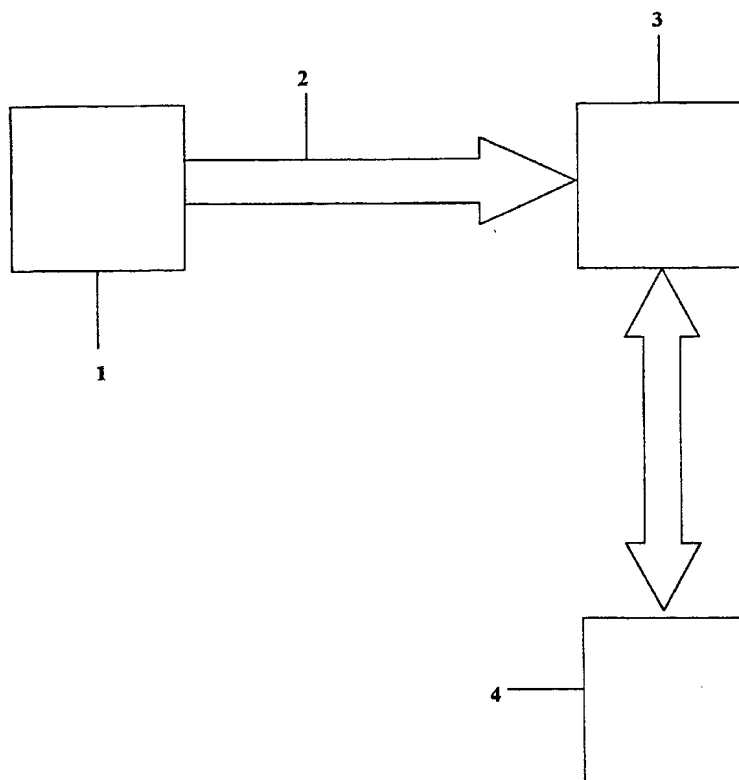
(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE,

(72) Inventor; and

(75) Inventor/Applicant (*for US only*): WYNNE, Adam,

[Continued on next page]

(54) Title: IDENTIFICATION OF COMPUTERS



(57) Abstract: A method of identifying a computer connected on-line to a remotely located site, comprises the steps of: searching a hard disk associated with the computer for identifying element inherent to the computer; and combining the identifying element, when found, together with other identifying information associated with the hardware of the computer, to form a unique identifier for that computer. The unique identifier for the computer is compared to a store of such unique identifiers available to the remote site. If the unique identifier is present in the store, it is matched to data which is available to the remote site and which is associated with that unique identifier. If the unique identifier is not present in the store, then it is stored in the store, and recorded against data associated with that computer.

WO 01/04730 A1



IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

- *With international search report.*
- *Before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments.*

IDENTIFICATION OF COMPUTERS

INTRODUCTION

This invention relates to the identification of a computer when logging onto a remote site. More specifically, the invention relates to the identification of such a computer without requiring the use of user identification data, such as a personal identification number (PIN) or the like.

BACKGROUND TO THE INVENTION

- 5 Computer users commonly log onto remote sites such as an Internet web site in order to perform transactions, which involve payments from the user for goods or services to be delivered by or through the web site. The remote site may for example be a web site that provides software for download by a user logging onto the site, and paying a required licence fee by credit card.

One of the difficulties experienced by providers of such on-line services is the identification of the user logging on to the associated remote site, for the purposes of credit control and for marketing information.

5 In most cases, some information has to be provided by the user before credit will be granted or the purchase can be effected, but the medium of payment lends itself to fraudulent input. A user paying by means of credit or debit card is not physically present when the transaction is concluded, and this enables the user to decline the purchase when the payment is presented to him by the account holder of the card facility. The provision of this user information also adds to the tedium of usage when a customer logs
10 onto a commercial site.

OBJECT OF THE INVENTION

It is an object of this invention to provide a method of and system for identifying a computer connected on-line to a remotely located site, which can at least partially, alleviate the abovementioned difficulties.

SUMMARY OF THE INVENTION

15 In accordance with this invention there is provided a method of identifying a computer connected on-line to a remotely located site, comprising the steps of:
searching a hard disk associated with the computer for an identifying element inherent to the computer;
combining such an identifying element, when found, together with other identifying information associated with the hardware of the computer, to form a unique identifier for
20 that computer;

comparing the unique identifier for the computer to a store of such unique identifiers available to the remote site;

if the unique identifier is present in the store, matching it to data which is available to the remote site and which is associated with that unique identifier; and

- 5 if the unique identifier is not present in the store, then storing it in the store, and recording against it data associated with that computer.

There is provided for the identifying element that is searched for on the hard disk to be a predetermined number such as a serial number of the hard disk, or another such number which is unique to the hardware of the computer.

- 10 There is particularly provided for the other identifying information to be information that is associated with the geometry of the hard disk, for example the number of sectors, platters and cylinders in the disk.

Preferably, the combining function is performed on the computer, and the unique identifier is sent to the remote site, from where it is compared to the store.

- 15 Still further features of the invention provide for the data relating to that computer, and against which the unique identifier is stored to include data relating to a credit record of previous transactions effected from that computer, or relating to further data associated with such previous transactions, such as credit card details used during such previous transactions

- 20 The invention extends to a method of creating a unique identifier for a computer, comprising the steps of:
finding an identifying element inherent to the computer; and

combining it together with other identifying information associated with the hardware of the computer, to form a unique identifier for that computer.

Preferably, the combining function is an encryption process, and is a 'hash; - type encryption.

- 5 This invention includes a system for identifying a computer connected on-line to a remotely located site, comprising:
- searching means for searching a hard disk associated with the computer for an identifying element inherent to the computer;
- combining means for combining such an identifying element, when found, together with
- 10 other identifying information associated with the hardware of the computer, to form a unique identifier for that computer;
- a database of unique identifiers for computers, the database being available to the remote site and having data associated with each such unique identifier; and
- comparator and operator means for matching the unique identifier with one in the
- 15 database of such unique identifiers, and with the data which is associated with a matched unique identifier, and for storing an unmatched unique identifier in the database and recording against it data associated with that computer.

- There is provided for the searching to be arranged to establish a predetermined type of number such as the serial number of the hard disk of the computer as the identifying
- 20 element, or to establish such other mark or number which is inherently particular to hardware connected to the computer.

There is particularly provided for the searching means to be arranged to establish the other identifying information in the form of information that is associated with the

geometry of the hard disk of the computer, preferably including the number of sectors, platters and cylinders in the hard disk.

The invention extends to a system for creating a unique identifier for a computer, comprising:

- 5 searching means for finding an identifying element inherent to the computer; and
 combining means for combining the identifying element together with other identifying information associated with the hardware of the computer, to form a unique identifier for that computer.

BRIEF DESCRIPTION OF THE DRAWINGS

- 10 A preferred embodiment of the invention is described below, by way of example only, and with reference to the accompanying drawing which is a functional block diagram of a system in accordance with the invention.

DETAILED DESCRIPTION OF THE DRAWINGS

- 15 Referring to the drawing, a remotely located computer (1) equipped with a hard disk can dial up through a telecommunication channel, indicated figuratively by line (2), to an Internet web site (3). The telecommunication line can be a conventional public switched telephone line with a modem facility associated therewith. The Internet web site (3) has the usual computer facilities associated with such a web site, namely a web server and an application server (not shown) and is connected to a database (4), for storing identifying markers and data associated therewith.

In use, a user logs onto the Internet web site (3) through the telecommunication channel (2) from the computer. The user in this instance will download software from the Internet web site (3), which is required to enable the user to purchase e-cash to perform gambling transactions on an on-line computer-based casino. Clearly the e-cash could be used for any transaction on the Internet. The actual casino need not of course be located at the Uniform Resource Locator (URL) of web site, but the software is downloaded from this web site.

Once downloaded, the software is activated and logs on to the Internet web site. It searches for the serial number of the computer's hard disk. The serial number is generally a 32-bit number which can be accessed through operating system software of the computer (1), such as the MS-DOS command "VOL" which displays the serial number in hexadecimal format as an eight character string. The software also establishes the number of sectors, platters and cylinders of the hard disk geometry. The serial number and the numbers relating to the hard disk geometry are combined in a hash encryption function to produce a unique identifier of that computer. The resultant encrypted output will provide a one in 2^{32} protection against a coincidence of the identifier from different computers.

The software transmits the identifier back to Internet web site (3) along the telecommunication channel. This unique identifier is then compared with other identifiers stored in the database (4) to see whether or not it is present. If the unique identifier is not in the database (4) it will be recorded as a new entry, and will be stored against a history of the transactions performed by any user at the remote computer (1).

When the remote computer (1) subsequently connects again to the remote site, or a user is gambling with the downloaded software, the unique identifier is recreated and is

transmitted to the Internet web site (3) for authentication. If the unique identifier is present in the database (1), the history of previous transactions from this computer can be examined.

5 If the user at the remote site has defaulted on a payment, or otherwise transgressed licensing or other limitations imposed by the licence terms of the Internet web site (3), then the web site can make a commercial decision on the log-on from the remote computer (1).

The transaction may be declined, or may be accepted with or without conditions.

10 It is considered that the invention forms a useful method and system for identifying computers that are logging on from remote sites to effect transactions. It will be appreciated that the method can be used for identifying a computer for any form of on-line interaction or transaction, and is not restricted to use in the environment described with reference to the drawings. Also, the software used to create the unique identifier
15 as part of a transaction processing package and be installed by a user on his computer.

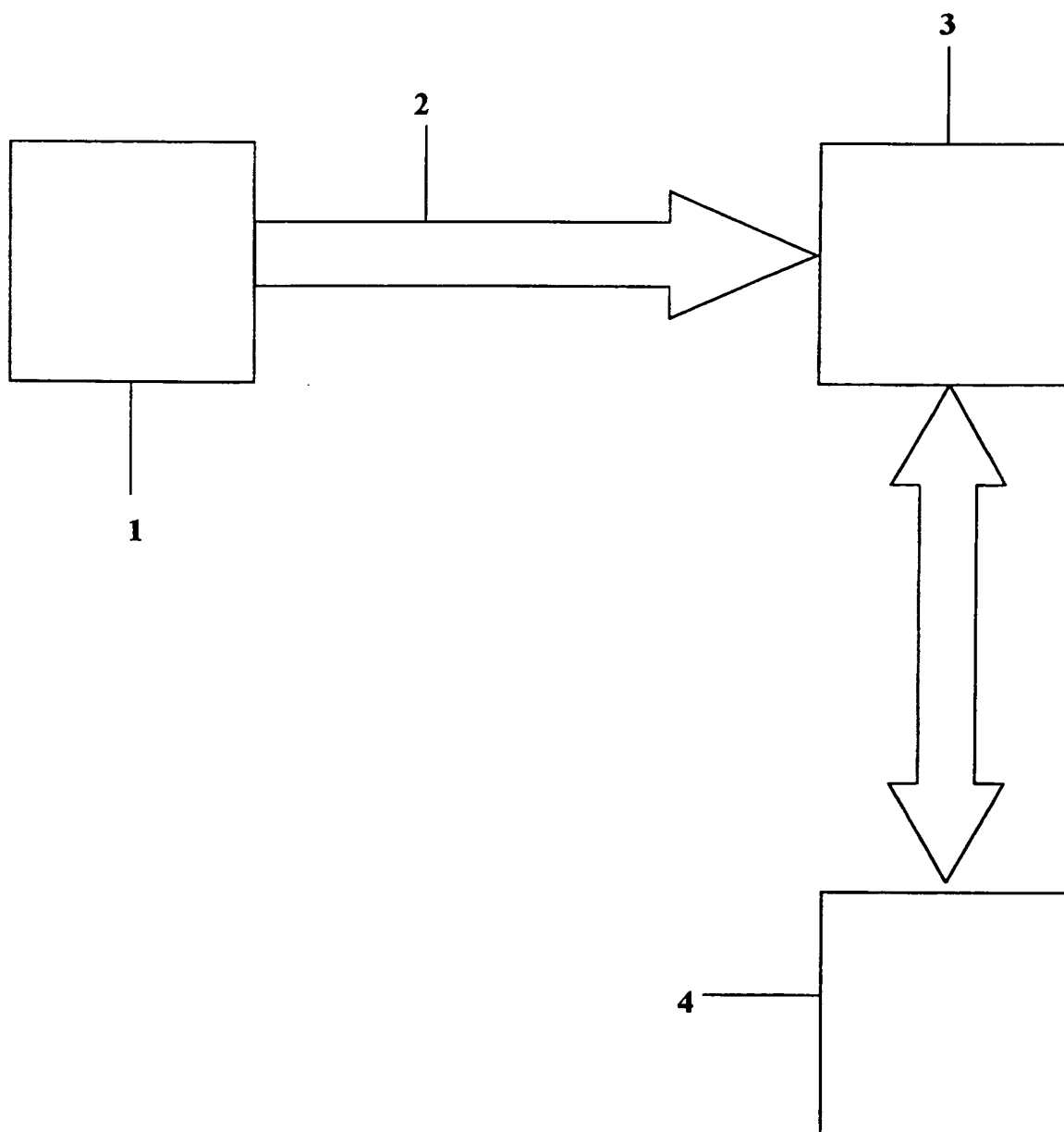
CLAIMS

1. A method of identifying a computer connected on-line to a remotely located site, comprising the steps of:
searching a hard disk associated with the computer for an identifying element inherent to the computer;
5 combining such an identifying element, when found, together with other identifying information associated with the hardware of the computer, to form a unique identifier for that computer;
comparing the unique identifier for the computer to a store of such unique identifiers available to the remote site;
10 if the unique identifier is present in the store, matching it to data which is available to the remote site and which is associated with that unique identifier; and
if the unique identifier is not present in the store, then storing it in the store, and recording against it data associated with that computer.
2. A method as claimed in claim 1 in which the identifying element that is searched
15 for on the hard disk is a predetermined number.
3. A method as claimed in claim 2 in which the predetermined number is a serial number of the hard disk or another such number which is unique to the hardware of the computer.
4. A method as claimed in any one of the preceding claims in which the other
20 identifying information is information that is associated with the geometry of the hard disk.

5. A method as claimed in claim 4 in which the information associated with the geometry of the hard disk includes the number of sectors, platters and cylinders in the disk.
- 5 6. A method as claimed in any one of the preceding claims in which the combining function is performed on the computer.
7. A method as claimed in any one of the preceding claims in which the unique identifier is sent to the remote site, from where it is compared to the store.
8. A method as claimed in any one of the preceding claims in which the data relating to that computer, and against which the unique identifier is stored, includes data
10 relating to a credit record of previous transactions effected from that computer.
9. A method as claimed in claim 8 in which the data relating to that computer, and against which the unique identifier is stored relates to further data associated with such previous transactions, such as credit card details used during such previous transactions.
- 15 10. A method of creating a unique identifier for a computer, comprising the steps of:
finding an identifying element inherent to the computer; and
combining the identifying element together with other identifying information associated with the hardware of the computer, to form a unique identifier for that computer.

11. A method as claimed in claim 10 in which the combining function is an encryption process.
12. A method as claimed in claim 11 in which the encryption process is a 'hash - type encryption.
- 5 13. A system for identifying a computer connected on-line to a remotely located site, comprising:
searching means for searching a hard disk associated with the computer for an identifying element inherent to the computer;
combining means for combining such an identifying element, when found, together
10 with other identifying information associated with the hardware of the computer, to form a unique identifier for that computer;
a database of unique identifiers for computers, the database being available to the remote site and having data associated with each such unique identifier; and
comparator and operator means for matching the unique identifier with one in the
15 database of such unique identifiers and with the data which is associated with a matched unique identifier, and for storing an unmatched unique identifier in the database and recording against it data associated with that computer.
14. A system as claimed in claim 13 in which the searching means is arranged to establish a predetermined type of number such as the serial number of the hard
20 disk of the computer as the identifying element.
15. A system as claimed in claim 13 in which the searching means is arranged to establish a mark or number which is inherently particular to hardware connected to the computer., as the identifying element.

16. A system as claimed in either one of claims 13 or 14 in which the searching means is arranged to establish the other identifying information that is associated with the geometry of the hard disk of the computer.
- 5 17. A system as claimed in claim 16 in which the geometry of the hard disk to include the number of sectors, platters and cylinders in the hard disk.
- 10 18. a system for creating a unique identifier for a computer, comprising: searching means for finding an identifying element inherent to the computer; combining means for combining the identifying element together with other identifying information associated with the hardware of the computer, to form a unique identifier for that computer.
- 19 A method of identifying a computer connected on-line to a remotely located site, substantially as herein described with reference to the accompanying drawings.
20. A method of creating a unique identifier for a computer substantially as herein described with reference to the accompanying drawings.
- 15 21. A system for identifying a computer connected on-line to a remotely located site, substantially as herein described with reference to and as illustrated in the accompanying drawings.
22. A system for creating a unique identifier for a computer, substantially as herein described with reference to and as illustrated in the accompanying drawings.



INTERNATIONAL SEARCH REPORT

International Application No.

PCT/GB 00/02692

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G06F1/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 99 26123 A (WAKELY CHRISTOPHER BENJAMIN) 27 May 1999 (1999-05-27)	1-3, 6-15, 18-22
Y	page 5, line 7 - line 9	4,5,16, 17
	page 5, line 19 -page 6, line 8 page 10, line 8 -page 11, line 1 page 15, line 9 - line 14 page 19, line 15 - line 21; figure 1	
Y	WO 95 35533 A (MEGALODE CORP) 28 December 1995 (1995-12-28) page 6, paragraph 2 page 16, line 3 - line 22; figures 1-4	4,5,16, 17
	--- -/--	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

17 November 2000

Date of mailing of the international search report

24/11/2000

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Moens, R

INTERNATIONAL SEARCH REPORT

Inter Application No

PCT/GB 00/02692

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>US 5 757 908 A (PRYOR ROBERT FRANKLIN ET AL) 26 May 1998 (1998-05-26) column 13, line 5 -column 15, line 5; figure 13</p> <p>-----</p>	1-22

INTERNATIONAL SEARCH REPORT

information on patent family members

Inter. Application No

PCT/GB 00/02692

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9926123 A	27-05-1999	NONE	
WO 9535533 A	28-12-1995	AU 2666595 A	15-01-1996
US 5757908 A	26-05-1998	US 5598470 A	28-01-1997
		CA 2145922 A,C	26-10-1995
		EP 0681233 A	08-11-1995
		JP 7306780 A	21-11-1995
		KR 188505 B	01-06-1999

One of the difficulties experienced by providers of such on-line services is the identification of the user logging on to the associated remote site, for the purposes of credit control and for marketing information.

5 In most cases, some information has to be provided by the user before credit will be granted or the purchase can be effected, but the medium of payment lends itself to fraudulent input. A user paying by means of credit or debit card is not physically present when the transaction is concluded, and this enables the user to decline the purchase when the payment is presented to him by the account holder of the card facility. The provision of this user information also adds to the tedium of usage when a customer logs
10 onto a commercial site.

OBJECT OF THE INVENTION

It is an object of this invention to provide a method of and system for identifying a computer connected on-line to a remotely located site, which can at least partially, alleviate the abovementioned difficulties.

SUMMARY OF THE INVENTION

15 In accordance with this invention there is provided a method of identifying a computer connected on-line to a remotely located site, comprising the steps of:
searching a hard disk associated with the computer for an identifying element inherent to the computer;
combining such an identifying element, when found, together with other identifying information associated with the hardware of the computer, to form a unique identifier for
20 that computer;

CLAIMS

1. A method of identifying a computer connected on-line to a remotely located site,
comprising the steps of:
searching a hard disk associated with the computer for an identifying element
inherent to the computer;
5 combining such an identifying element, when found, together with other identifying
information associated with the hardware of the computer, to form a unique
identifier for that computer;
comparing the unique identifier for the computer to a store of such unique
identifiers available to the remote site;
10 if the unique identifier is present in the store, matching it to data which is available
to the remote site and which is associated with that unique identifier; and
if the unique identifier is not present in the store, then storing it in the store, and
recording against it data associated with that computer.
- 15 2. A method as claimed in claim 1 in which the identifying element that is searched
for on the hard disk is a predetermined number.
3. A method as claimed in claim 2 in which the predetermined number is a serial
number of the hard disk or another such number which is unique to the hardware
of the computer.
- 20 4. A method as claimed in any one of the preceding claims in which the other
identifying information is information that is associated with the geometry of the
hard disk.

5. A method as claimed in claim 4 in which the information associated with the geometry of the hard disk includes the number of sectors, platters and cylinders in the disk.
- 5 6. A method as claimed in any one of the preceding claims in which the combining function is performed on the computer.
7. A method as claimed in any one of the preceding claims in which the unique identifier is sent to the remote site, from where it is compared to the store.
8. A method as claimed in any one of the preceding claims in which the data relating to that computer, and against which the unique identifier is stored, includes data relating to a credit record of previous transactions effected from that computer.
- 10 9. A method as claimed in claim 8 in which the data relating to that computer, and against which the unique identifier is stored relates to further data associated with such previous transactions, such as credit card details used during such previous transactions.
- 15 10. A method of creating a unique identifier for a computer, comprising the steps of:
finding an identifying element inherent to the computer; and
combining the identifying element together with other identifying information associated with the hardware of the computer, to form a unique identifier for that computer.

11. A method as claimed in claim 10 in which the combining function is an encryption process.
12. A method as claimed in claim 11 in which the encryption process is a 'hash - type encryption.
- 5 13. A system for identifying a computer connected on-line to a remotely located site, comprising:
searching means for searching a hard disk associated with the computer for an identifying element inherent to the computer;
combining means for combining such an identifying element, when found, together
10 with other identifying information associated with the hardware of the computer, to form a unique identifier for that computer;
a database of unique identifiers for computers, the database being available to the remote site and having data associated with each such unique identifier; and
comparator and operator means for matching the unique identifier with one in the
15 database of such unique identifiers and with the data which is associated with a matched unique identifier, and for storing an unmatched unique identifier in the database and recording against it data associated with that computer.
14. A system as claimed in claim 13 in which the searching means is arranged to establish a predetermined type of number such as the serial number of the hard
20 disk of the computer as the identifying element.
15. A system as claimed in claim 13 in which the searching means is arranged to establish a mark or number which is inherently particular to hardware connected to the computer., as the identifying element.

16. A system as claimed in either one of claims 13 or 14 in which the searching means is arranged to establish the other identifying information that is associated with the geometry of the hard disk of the computer.
- 5 17. A system as claimed in claim 16 in which the geometry of the hard disk to include the number of sectors, platters and cylinders in the hard disk.
- 10 18. a system for creating a unique identifier for a computer, comprising: searching means for finding an identifying element inherent to the computer; combining means for combining the identifying element together with other identifying information associated with the hardware of the computer, to form a unique identifier for that computer.
- 19 19. A method of identifying a computer connected on-line to a remotely located site, substantially as herein described with reference to the accompanying drawings.
20. A method of creating a unique identifier for a computer substantially as herein described with reference to the accompanying drawings.
- 15 21. A system for identifying a computer connected on-line to a remotely located site, substantially as herein described with reference to and as illustrated in the accompanying drawings.
22. A system for creating a unique identifier for a computer, substantially as herein described with reference to and as illustrated in the accompanying drawings.



IT, LU, MC, NL, PT, SE). OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

- *With international search report.*
- *Before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments.*

INTERNATIONAL SEARCH REPORT

International Application No
PCT/GB 00/02692

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G06F1/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 99 26123 A (WAKELY CHRISTOPHER BENJAMIN) 27 May 1999 (1999-05-27)	1-3, 6-15, 18-22
Y	page 5, line 7 - line 9	4, 5, 16, 17
	page 5, line 19 - page 6, line 8 page 10, line 8 - page 11, line 1 page 15, line 9 - line 14 page 19, line 15 - line 21; figure 1	
Y	WO 95 35533 A (MEGALODE CORP) 28 December 1995 (1995-12-28) page 6, paragraph 2 page 16, line 3 - line 22; figures 1-4	4, 5, 16, 17
	--- -/--	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

17 November 2000

Date of mailing of the international search report

24/11/2000

Name and mailing address of the ISA
European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Moens, R

INTERNATIONAL SEARCH REPORT

Inter .nal Application No
PCT/GB 00/02692

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>US 5 757 908 A (PRYOR ROBERT FRANKLIN ET AL) 26 May 1998 (1998-05-26) column 13, line 5 -column 15, line 5; figure 13</p> <p>-----</p>	1-22

INTERNATIONAL SEARCH REPORT

information on patent family members

Inter. nal Application No

PCT/GB 00/02692

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9926123 A	27-05-1999	NONE	
WO 9535533 A	28-12-1995	AU 2666595 A	15-01-1996
US 5757908 A	26-05-1998	US 5598470 A	28-01-1997
		CA 2145922 A,C	26-10-1995
		EP 0681233 A	08-11-1995
		JP 7306780 A	21-11-1995
		KR . 188505 B	01-06-1999